

Physics	Group-II	Paper-II
Time: 15 Minutes	(Objective Type)	Max. Marks: 12

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- The step down transformer:

- (a) Decreases the input current
- (b) Decreases the input voltage ✓
- (c) Has more turns in secondary coil
- (d) Has less turns in primary coil

2- Term "e-mail" stands for:

- (a) Emergency mail
- (b) Extra mail
- (c) External mail
- (d) Electronic mail ✓

3- Electroscope is used to detect:

- (a) Charge ✓
- (b) Voltage
- (c) Pressure
- (d) Temperature

4- Example of primary memory is:

- (a) Read only memory (ROM) ✓
- (b) Hard disk
- (c) Floppy disk
- (d) Audio cassette

5- If mass of the bob of a pendulum is increased by a factor of 3, the period of pendulum's motion will:

- (a) Be increased by factor of 2
- (b) Remain the same ✓
- (c) Be decreased by factor of 2
- (d) Be decreased by a factor of 4

If $X = A.B$, then X is '1' when:

- 6- (a) $A = 1, B = 1$ ✓ (b) $A = 0, B = 0$
(c) $A = 0, B = 1$ (d) $A = 1, B = 0$

7- Example of mechanical waves is:

- (a) Radio waves (b) X-Rays
(c) Light waves (d) Sound waves ✓

8- A lamp connected to a 12V source, when it carries 2.5A current, power will be:

- (a) 4.8 W (b) 14.5 W
(c) 30 W ✓ (d) 60 W

9- The focal length (f) is related to radius of curvature (R) as:

- (a) $f = 2R$ (b) $R = \frac{f}{2}$
(c) $f = \frac{R}{2}$ ✓ (d) $f R = 2$

10- The characteristic of sound by which we can distinguish between two sounds of same loudness and pitch is called:

- (a) Intensity (b) Quality ✓
(c) Loudness (d) Pitch

11- One of isotope of Uranium is ${}^{238}_{92}\text{U}$. The number of neutrons in this isotope is:

- (a) 92 (b) 146 ✓
(c) 238 (d) 330

12- In series combination of capacitors, each capacitor will have same:

- (a) Voltage (b) Charge ✓
(c) Capacitance (d) Charge and voltage